

## CLAIMS:

1. An electronic device comprising a free-standing thin film (30), the thin film (30) comprising an alloy of aluminum and at least magnesium.
2. An electronic device as claimed in claim 1, comprising an alloy of aluminum,  
5 magnesium and at least one further material.
3. An electronic device as claimed in Claim 2, wherein said at least one further material comprises one or more of copper, manganese, silicon, nickel, chromium, and lithium.
- 10 4. An electronic device as claimed in Claim 1,2 or 3, wherein the Mg content is between 0.1 and 10 atomic weight per cent.
5. An electronic device as claimed in Claim 3, wherein said one further material  
15 comprises copper in an amount between 0.1 and 8 atomic weight per cent.
6. An electronic device as claimed in Claim 3 or 5, wherein the sum of the contents of magnesium, copper and manganese is between 2.5 and 10 atomic weight per cent.
- 20 7. An electronic device as claimed in Claim 3 or 6, wherein the alloy is chosen from the group of  $Al_vMg_wCu_xMn_y$ ,  $Al_vMg_wMn_y$ ,  $Al_vMg_wCu_xSi_{z1}Ni_{z2}$ ,  $Al_vMg_wCu_x$ ,  $Al_vMg_wCu_xSi_{z1}$ ,  $Al_vMg_wCu_xZn_{z3}Cr_{z4}$ ,  $Al_vMg_wCu_xLi_{z5}$ , with  $80 \leq v \leq 99.8$ ; and  $0.1 \leq w \leq 8.0$ ,  $0.1 \leq x \leq 8.0$ ,  $0.1 \leq y \leq 4.0$  and  $z1, z2, z3, z4, z5$  each smaller than 20, and preferably smaller than 5.
- 25 8. A method of manufacturing an electronic device comprising a free-standing thin film (30), the method comprising the steps of:
  - providing a mechanical layer of material (12) on a sacrificial release layer (16,17);

- structuring said mechanical layer (12) to define the film (30); and
  - removing said release layer (16, 17) to render said film (30) free- standing.
- characterized in that said top layer comprises an alloy of aluminum and at least magnesium.
- 5 9. A method according to claim 8, wherein said release layer (16, 17) is patterned prior to provision of said mechanical layer (12) thereon.